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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/068,199	02/05/2002	Leo Gagilardi	CM-2501	7093

27752 7590 03/24/2004

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EXAMINER

KUMAR, PREETI

ART UNIT	PAPER NUMBER
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1751

DATE MAILED: 03/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/068,199

Applicant(s)

GAGILARDI ET AL.

Examiner

Preeti Kumar

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Non-Final Rejection after RCE***

1. Claims 1-17 are pending. Claims 18-19 are cancelled.
2. Claims 1 and 16 are independent.

***Response to Amendment***

3. The rejection of claims 1, 3-15 and 17 under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Terry et al. (US 5,259,848) is withdrawn in light of applicants amendment to claim 1, specifically the limitation to the pH.
4. The rejection of claim 2 under 35 U.S.C. 103(a) as being unpatentable over Terry et al. as applied to claims 1,3-19 above, and in view of Grippaudo et al. (US 6,403,547) is withdrawn in light of applicants amendment to claim 1.
5. The rejection of claim 16 under 35 U.S.C. 102(b) as being anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Terry et al. (US 5,259,848) is maintained for the reasons recited in the previous office action.
6. The rejection of claim 16 under 35 U.S.C. 103(a) as obvious over Terry et al. (US 5,259,848) is maintained for the reasons recited in the previous office actions and further explained below.

***Response to Arguments***

7. Applicant's arguments filed December 30, 2003 have been fully considered but they are not persuasive.

Applicants urge that Terry et al. do not teach a process of cleaning a carpet comprising the steps of applying a liquid carpet cleaning composition onto a carpet using an electrically operated spraying device. However, examiner draws attention to the limitations of independent claim 16. Instant claim 16 does not recite any of the process steps as urged by the applicant. Instead independent claim 16 is drawn to a carpet cleaning composition comprising a fluorinated compound a peroxygen bleach and a radical scavenger. The teachings of Terry et al. disclose a carpet cleaning composition comprising a fluorinated compound, a peroxygen bleach and a toluene radical scavenger. Please see the previous office actions and furthermore, col.4, ln.18-19 and 35-60, and col.5, lines 5-10. Hence, the rejection of claim 16 under 35 U.S.C. 103(a) as obvious over Terry et al. (US 5,259,848) is proper.

8. Applicant's urge that Terry et al. does not employ storage stable composite product and instead uses two components that are apparently not stable over time if mixed together. Examiner finds no support or basis for this argument on page6 of applicants remarks or how the arguments point out disagreements with the examiner's contentions. Applicant must also discuss the references applied against the claims, explaining how the claims avoid the references or distinguish from them. Also, note that the instant claims are drawn to a composition comprising a fluorinated compound and not to a composition consisting of only a fluorinated compound.

9. Finally Applicant's urge that Terry et al. is not a relevant prior art because the teachings of Terry et al. are directed to a spotter type cleaner which is applied to a small area of carpet. However, arguments or conclusionary statements unsupported by

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factual evidence are insufficient to establish unexpected results. See *In re Linder*, 173 USPQ 356 (CCPA 1972). Furthermore, in example 3 Terry et al. teach that the stain removing solution is applied from a spray bottle in general.

10. Applicant's arguments with respect to claims 1-15 and 17 have been considered but are moot in view of the new ground(s) of rejection.

***New Grounds of Rejection***

***Claim Rejections - 35 USC § 112***

11. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

12. Claims 5 and 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Regarding claims 5 and 12, the phrase "and/or" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention.

***Claim Rejections - 35 USC § 103***

13. Claims 1,3-15 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Terry et al. (US 5,259,848) in view of Boucher (US 3,929,662).

Terry et al. teach a method to remove stubborn stains is provided that includes application of an ammonium salt, preferably ammonium bicarbonate or ammonium carbonate, in combination with a peroxide and a fluorinated alkyl sulfonic acid. A major advantage of the method is that the solution is strong enough to remove coffee and tea

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stains yet sufficiently mild that it does not damage the carpet or pose a risk of danger to the person treating the stain. See col.2, ln.28-36. Many types of compositions are sold to remove stains from carpet and textiles. Common components of these stain removing solutions are trichloroethane, toluene, petroleum naphtha, methylene chloride, xylene and derivatives of xylene, surfactants, ethoxylates, sulfates and detergents. These are commonly applied in a fluorocarbon aerosol. See col.1, ln.50-60.

Specifically regarding claims 3-7 and 14, Terry et al. teach that the surfactant can be a cationic, nonionic, or anionic compound, including the salts of sulfated fatty alcohols, salts of alkyl aromatic sulfates, ethoxylated amines, quaternary amines, ethoxylated fatty alcohols, ethoxylated alkyl phenols, and ethoxylated quaternary amines. Terry et al. teach that a preferred surfactant is a fluorinated alkyl sulfonic acid. The term "fluorinated alkyl" as used herein, refers to a C1 to C25 alkyl group in which at least two hydrogen atoms are replaced with fluorine. A suitable commercial product is Zonyl TBS fluorosurfactant, sold by E.I. DuPont de Nemours & Co., Inc., containing 30-35% perfluoroalkyl sulfonic acid, ammonium salt, and 2-4% acetic acid. Coordinate salts include any salt of the sulfonic acid that does not adversely affect the performance of the acid in the stain removing solution, including the ammonium, sodium, or potassium salt. The fluorinated alkyl sulfonic acid reduces the later wetting of the fiber surface by minimizing chemical contact between the surface and substances that can oil the fiber, making the substance easier to remove. When used on nylon (polyamide) fiber, it may also impart stain resistance to the fiber by ionically bonding to terminal amine sites, preventing the later attachment of staining acid dyes such as those found in colored fruit

and soft drinks. Other preferred fluorocarbon surfactants are perfluoro aliphatic oxybenzene sulfonic acid salts. See col.4, ln.30-60.

Specifically regarding claims 8-10, Terry et al. teach a source of peroxide as an oxidant in a solvent. The preferred peroxide is hydrogen peroxide because it does not leave a residue on the fiber, as it breaks down to volatile products on reaction with the ammonium salt. Other peroxides that can be used are water soluble organic peroxides, such as t-butyl hydroperoxide, and inorganic peroxides. Other oxidants such as ammonium perchlorate and ammonium persulfate can also be used in place of peroxide. Any concentration of peroxide can be used that is effective to remove stains and that does not damage the fiber or any material that it is attached to. The concentration of peroxide is preferably between 3% and 35%. See col.5, ln.1-20.

Specifically regarding claims 11-12, Terry et al. teach that a preferred solvent is water or a mixture of water and alcohol. Alcohols facilitate the penetration, or "wetting out" of solution into the yarns. Preferred alcohols are the lower molecular weight alcohols, such as methyl, ethyl, propyl, isopropyl, isobutyl, sec-butyl, and t-butyl alcohol. See col.3, ln.49-55. Regarding the radical scavenger as recited in claim 15, Terry et al. teach a carpet cleaning composition comprising fluorinated compounds and toluene, which can function as a radical scavenger. See col.4, ln.15-20.

Terry et al. illustrate the removal of coffee stains from nylon carpet in example 3. A coffee stain on nylon carpet is removed with the following procedure. One part by weight of the Part A solution is mixed with one part by weight of the Part B solution as prepared in Example 1. After most of the coffee residue from the spill has been

removed from the carpet fiber, the stain removing solution is applied from a spray bottle, taking care to saturate the stain without overwetting the carpet. The solution is allowed to remain on the carpet until either the stain has been removed, or until the area has dried. If the stain persists, repeat the procedure. The coffee stain is substantially removed.

Specifically regarding pH, Terry et al. teach the benefit of utilizing the ammonium salt to bring the pH of the solution to approximately pH 7.0, to sufficiently activate the peroxide to remove stubborn stains while remaining less harmful to the stained carpet or fabric so that the very basic ammonia solution will not significantly weaken the latex backing of the carpet. See col.2, ln.64-col.3, ln.5.

However, Terry et al. do not specifically teach a carpet cleaning composition having a pH between 0 and 6.5 and comprising a fluorinated compound wherein the composition is sprayed using an electrically operated spraying device as recited by the instant claim 1.

Boucher teach cleaning compositions comprising fluorinated and/or perfluorinated compounds at a pH of 3-9 preferentially provides satisfactory sporicidal action both with fluoro and perfluoro chemicals. See col.8, ln.63-65.

Thus, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to formulate a cleaning composition comprising a fluorinated compound having a pH between 0 and 6.5 as recited by the instant claim 1, because the teachings of Boucher suggest a cleaning composition comprising a fluorinated compound having a pH in the range of 3 to 9 provides satisfactory sporicidal benefits.

And furthermore, Terry et al. provide motivation to modify the pH of the cleaning composition from pH 12 to about pH 7 using ammonium salts to prevent significant weakening of the latex backing of carpet.

Also, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to arrive at a process of cleaning at least 50% of a carpet area by applying the recited amount of liquid carpet cleaning composition with an electrically operated spraying device because Terry et al. suggest a carpet cleaning composition utilized in an amount that would saturate the stain without overwetting the carpet and further suggest that the composition is applied by the action of spraying on stains in general and furthermore, electrically operated spraying device are well known in the carpet cleaning industry.

14. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Terry et al. in view of Boucher as applied to claims 1,3-15 and 17 above, and further in view of Grippaudo et al. (US 6,403,547).

Terry et al. are relied upon as set forth above. However, Terry et al. do not specifically teach the use of a vacuum cleaner to partially remove the composition as recited by the instant claim 2.

Grippaudo et al. teach a process of cleaning a carpet with a liquid composition comprising a peroxygen bleach and an N-vinyl polymer, said process comprising the steps of applying said composition to the surface of the carpet and leaving said composition to dry onto the carpet and further comprises the step of removing said composition. The carpet cleaning composition provides carpet cleaning and/or carpet

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anti-resoiling benefits. See abstract and col.2, ln.35-50. Grippaudo et al. teach that the composition is applied onto the carpet in the form of a spray of droplets using spray dispensers that may be manually or electrically operated. See col.2, ln.60-col.3, ln.60. The composition is left to dry until it has combined with dirt and has been changed into dry residues. The composition is then removed from the carpet by vacuum cleaning. See col.4, ln.38-45.

It would have been obvious, to one of ordinary skill in the art, at the time the invention was made to modify the teachings of Terry et al. to use a vacuum cleaner to remove the composition, because the teachings of Grippaudo et al. illustrate the use of a vacuum cleaner to remove carpet cleaning composition and further Terry et al. provide motivation to remove the cleaning composition after the stain has been removed or the area being cleaned has dried.

### ***Conclusion***

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Preeti Kumar whose telephone number is 571-272-1320. The examiner can normally be reached on M-F 9:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra N. Gupta can be reached on 571-272-1316. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Preeti Kumar  
Examiner  
Art Unit 1751

PK

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